



Data Integration Assistance and Technical Support

As law enforcement agencies implement Records Management Systems (RMSs) to comply with the data standards of the National Incident-Based Reporting System (NIBRS), the Federal Bureau of Investigation's (FBI's) Uniform Crime Reporting (UCR) Program is also giving them the opportunity to move from flat file formats to Extensible Markup Language (XML). With the assistance of the FBI's Data Integration Team, agencies can incorporate the newer, standardized data submission methods by integrating web-based applications using XML. The Data Integration Team encourages agencies to contact the FBI early in their planning process to help make the transition to NIBRS XML submissions as seamless as possible.

Resources & Tools

Information Exchange Package Documentation (IEPD)

- **XML Schemas** define the data elements, namespaces, and cardinality (i.e., occurrence of unique data values) associated with NIBRS submissions. Schemas can be used to auto-generate software corresponding with NIBRS submission.
- **NIBRS Code Tables** show the acceptable data element inputs for NIBRS submissions and corresponding codes.
- **XML Mapping** is a spreadsheet with tables to show mappings between NIBRS data element names, numbers, path, and cardinality; and descriptions of meanings and uses of each data element.
- **NIBRS Master Document** is a reference guide listing document artifacts and XML elements and associations to the NIBRS specification.
- **UML Diagram** is provided with the IEPD and captures Unified Modeling Language (UML), a general developmental modeling language, for a standard way to visualize a system's design.
- **IEPD Samples** provide basic transactions showing how to structure XML submissions.



Scenarios for IEPD Submissions depict how incidents would be submitted via the flat file format versus how they would be submitted in XML.

XML Conformance Testing Assistant (XCOTA) is a data validation tool for schema and business rule checks of XML submissions. Available as a desktop download, XCOTA produces error reports that can be used by agencies going through the NIBRS XML development process.



XML Developer's Guide provides the technical layout of NIBRS XML submissions, as well as the related business rules and associated errors.

NIBRS Technical Specifications provide the technical layout of NIBRS flat file submissions, as well as the related business rules and associated errors.

NIBRS User Manual explains the data segments, data elements, and associated data values that facilitate incident-based reporting. The manual also provides offense definitions, incident scenarios, and information on classifying and scoring to help data contributors understand what constitutes a NIBRS submission and how to submit the data. Information about implementation, certification, and the UCR Quality Assurance Review process is included.

Technical Assistance

Developmental Assistance involves direct support to agencies or their RMS developers regarding XML NIBRS submissions. Support includes reviews of code, including sample code to ensure the development of specific functions. The Data Integration Team can also analyze processes to help identify technical gaps and estimate the level of effort needed to bridge such gaps in completing NIBRS transitions.

Guidance for Record Layouts and Referrals for Training help clarify where specific information should be entered in the record layouts of XML submissions. The team also makes referrals to the NIBRS trainers who assist agencies with the proper use and interpretation of data elements and associated values in submitting incident-based data.

Business Rule Evaluations offer technical assistance when an agency's data quality checks produce errors that conflict with those provided by the FBI's Error Data Set.

NIBRS Certification is a process required of agencies to check for system appropriateness, assess submission error rates, evaluate agency responsiveness, and determine whether the data are statistically reasonable to comply with the FBI's data submission standards for NIBRS.

Secure File Transfer Protocol (SFTP) and Web Services offer technical assistance to agencies setting up accounts for SFTP and Web service submissions. The team also assists data contributors and network engineers in checking targeted internet protocols, network address translations, and firewall rules.

Connections to Cross-Domain Solutions (CDS) for Federal Reporting are developed in collaboration when an agency needs to establish a submission path from the unclassified side of its CDS to the FBI's unclassified system. Technical assistance and analysis are available.

Contact the FBI Data Integration Team for assistance and information
by email at UCR-NIBRS@fbi.gov or phone at 304-625-9999.